UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,553	11/09/2001	Robert O. Aberg	MWS-009	6757

			EXAMINER
959	7590	05/12/2006	BRIER, JEFFERY A

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BOSTON, MA 02109

ART UNIT	PAPER NUMBER
2628	

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		10/008,553	ABERG ET AL.
		Examiner	Art Unit
		Jeffery A. Brier	2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-7,9,10,17,19 and 22* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5-7, 9, 10, 17, 19, and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The amendment filed on 4/20/2006 has been entered.

The following rejection is directed to 35 USC 101 and 112 as well as a new

interpretation of claims 5-7, 17, 19, and 22 and the Schatz reference.

The previous indication of allowable subject matter incorrectly stated Schatz did

not teach *copying less than all of said graphical differences from said selected one of*

said two diagrams. Schatz does teach this because the specification at page 12 lines 9

to 11 broadly defines graphical difference as cosmetic/graphical and does not specify

any specific cosmetic or graphical differences, thus, the examiner proposes that

changes in size, location, and whitespace are inherently included in applicant's

cosmetic/graphical difference. Thus, when Schatz at column 11 lines 11-21 states:

It should be understood that a merged network diagram may be displayed as an
extension of either of the original network diagrams or a new network diagram,
depending upon the user defined taxonomy used in the creation of the merged network
diagram. The primary difference between an original network diagram and a
reconstituted display of the same generated from a database underlying the merged
network diagram is the possible addition of a single system u representing one or more
systems in a universal class not included in either of the original network diagrams.

and at lines 29-35:

If the trees of systems are mutually exclusive, then the trees of systems are combined
with a system u representing a universal tree of aggregate systems not found in either
tree to form a new tree (unless the combination of both trees of systems includes all
systems in the universal tree of systems, making this step unnecessary).

Schatz is teaching to one of ordinary skill in the art that a combined diagram may have

less graphical elements than each of the individual diagrams have when viewed

separately. A number of graphical or cosmetic elements may be absent such as

spacing or whitespace between lines, blocks, etc of the diagram, size of each of the

lines, blocks, etc of the diagram, and/or location of the lines, blocks, etc of the diagram.

These examples are not exclusive of other cosmetic/graphical differences that may be

present in the merged diagram taught by Schatz.

Specification

2.   The disclosure is objected to because of the following informalities: at page 7 line

1 "Blocks may considered" should be "Blocks may be considered".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

4.   Claims 5-7, 9, 10, 17, 19, and 22 are rejected under 35 U.S.C. 101 because the

claimed invention is directed to non-statutory subject matter. This application is directed

to a useful, concrete, and tangible result of displaying the result of the inserting the

copied functional and graphical differences into corresponding sections of the other

electronic diagram, however, these claims are not. These claims are directed to data

manipulation without having a useful, concrete, and tangible result. State Street Bank &

Trust Co. v. Signature Financial Group Inc.   (CA FC) 47 USPQ2d 1596, 1603

(7/23/1998). AT&T Corp. v. Excel Communications Inc. (CA FC) 50 USPQ2d 1447.

On page 1603 first paragraph the CAFC wrote in State Street:

> Under Benson , this may have been a sufficient indicium
> of nonstatutory subject matter. However, after Diehr and
> Alappat , the mere fact that a claimed invention involves
> inputting numbers, calculating numbers, outputting
> numbers, and storing numbers, in and of itself, would not
> render it nonstatutory subject matter, unless, of course, its
> operation does not produce a "useful, concrete and tangible
> result." Alappat , 33 F.3d at 1544, 31 USPQ2d at 1557. 7

On page 1603 paragraph labeled [4] the CAFC wrote:

> [4] The question of whether a claim encompasses statutory
> subject matter should not focus on which of the four
> categories of subject matter a claim is directed to 9 --
> process, machine, manufacture, or composition of matter--
> but rather on the essential characteristics of the subject
> matter, in particular, its practical utility. Section 101 specifies
> that statutory subject matter must also satisfy the other
> "conditions and requirements" of Title 35, including novelty,
> nonobviousness, and adequacy of disclosure and notice.
> See In re Warmerdam , 33 F.3d 1354, 1359, 31
> USPQ2d 1754, 1757-58 (Fed. Cir. 1994).

Please refer to the interim guidelines found at:

Interim Guidelines for Examination of Patent Applications for Patent Subject Matter

Eligibility October 26, 2005.

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.p

df.

and published in the OG 22Nov2005

http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm).

Step 54 and that which is discussed at page 11 lines 14-16 appears to be a useful, concrete, and tangible result of the processing performed by these claims, however, these claims do not claim the display step. The displaying step at line 9 of claim 19 is not displaying the result of the method.

Claim 22 has the additional issue the claim is directed to a program per se and the specification does not describe a medium holding computer-executable instructions, thus, an amendment to make this claim statutory may not be possible. Applicant should consider canceling this claim.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claims 5-7, 9, 10, 17, 19, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5:

The last three lines of this claim are not technically correct since they claim "inserting the copied functional differences and graphical differences into corresponding sections of said other electronic diagram, said copied functional and graphical differences being inserted in the corresponding section of said other electronic diagram". It should be apparent that two electronic diagrams that have differences will not have "corresponding sections" in each of the electronic diagrams. It should be apparent that the similar sections have a correspondence.

Claim 7:

At line 5 it is not clear if the child data in said two electronic diagrams is being replaced or if only the child data in the "said other electronic diagram" is being replaced. Refer to claim 6 which only changes the child in the "said other electronic diagram".

Claim 9:

At line 16 "said displayed line" lacks antecedent basis in the claim. At line 11 "a line" is not a "displayed line" even though it is associated with the display surface by association with the endpoint since the distance is being determined between the line's endpoint and an updated connection point both of which have not been positively claimed to be displayed on the claimed display surface.

This claim is also incomplete because lines 16-17 do not state what happens when the distance is at least as large as said pre-defined parameter. Claim 10 would make claim 9 complete.

Claim 10:

This claim does not correct the lack of antecedent basis issue found in parent claim 9. Also "said line" lacks antecedent basis in the claim in view of "said displayed line" of claim 9 line 16 and "a line" of claim 9 line 11.

Claim 17:

At lines 14-24 "one or more differences" is claimed which when read as "one difference" renders the copying step unclear as to how many differences are being copied, a functional difference or a graphical difference. The last three lines of this claim have the same issues of the last two lines of claim 5. It should be apparent that

two state diagrams that have differences will not have "corresponding sections" in each of the state diagrams. It should be apparent that the similar sections have a correspondence.

Claim 19:

This claim has the same issues found in claim 17. At lines 18-28 "one or more differences" is claimed which when read as "one difference" renders the copying step unclear as to how many differences are being copied, a functional difference or a graphical difference. The last three lines of this claim have the same issues of the last two lines of claim 5. It should be apparent that two electronic diagrams that have differences will not have "corresponding sections" in each of the electronic diagrams. It should be apparent that the similar sections have a correspondence.

Claim 22:

This claim has the same issues found in claim 17. At lines 13-22 "one or more differences" is claimed which when read as "one difference" renders the copying step unclear as to how many differences are being copied, a functional difference or a graphical difference. The last three lines of this claim have the same issues of the last two lines of claim 5. It should be apparent that two electronic diagrams that have differences will not have "corresponding sections" in each of the electronic diagrams. It should be apparent that the similar sections have a correspondence.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a
foreign country or in public use or on sale in this country, more than one year
prior to the date of application for patent in the United States.

8.   Claims 5-7, 17, 19, and 22 are rejected under 35 U.S.C. 102(b) as being

anticipated by Schatz et al., U.S. Patent No. 5,845,270.

Schatz describes comparing at least two electronic diagrams, column 1 lines 41-

45, and merging at least two electronic diagrams, column 10 line 65 to column 11 line

21, and Schatz also describes comparing at least two state diagrams, column 1 lines

36-39, and merging at least two state diagrams, column 10 line 65 to column 11 line 21.

Shatz at column 2 lines 3-7 and 31-34, column 6 lines 43-45 and 55-58, column

6 line 67 to column 7 line 2, column 7 lines 8-17 and 49-51, column 8 lines 8-18 and 33-

48, column 9 lines 6-9, 35-37, and 39-47, column 10 lines 21-27 and 44-47, and column

11 lines 56-58 teaches to the skilled artisan the broadly claimed determining differences

between electronic diagrams and enabling a user to select one or more of said

differences (attributes, systems, resources, etc) which are then programmatically

merging the selected differences from one diagram into another diagram at a location

where the difference should be placed in the merged diagram.

Schatz does teach merging some of the graphical differences because the

specification at page 12 lines 9 to 11 broadly defines graphical difference as

cosmetic/graphical and does not specify any specific cosmetic or graphical differences,

thus, the examiner proposes that changes in size, location, and whitespace are

inherently included in applicant's cosmetic/graphical difference. Thus, when Schatz at

column 11 lines 11-21 states:

It should be understood that a merged network diagram may be displayed as an
extension of either of the original network diagrams or a new network diagram,
depending upon the user defined taxonomy used in the creation of the merged network
diagram. The primary difference between an original network diagram and a
reconstituted display of the same generated from a database underlying the merged
network diagram is the possible addition of a single system u representing one or more
systems in a universal class not included in either of the original network diagrams.

and at lines 29-35:

If the trees of systems are mutually exclusive, then the trees of systems are combined
with a system u representing a universal tree of aggregate systems not found in either
tree to form a new tree (unless the combination of both trees of systems includes all
systems in the universal tree of systems, making this step unnecessary).

Schatz is teaching to one of ordinary skill in the art that a combined diagram may have

less graphical elements than each of the individual diagrams have when view

separately. A number of graphical or cosmetic elements may be absent such as

spacing or whitespace between lines, blocks, etc of the diagram, size of each of the

lines, blocks, etc of the diagram, and/or location of the lines, blocks, etc of the diagram.

These examples are not exclusive of other cosmetic/graphical differences that may be

present in the merged diagram taught by Schatz.

A detailed analysis of the claims follows.

Claim 5:

Schatz teaches in an electronic device (*see figure 6, computer system 600 is an*

electronic device since it uses an magnetic disk, column 5 line 38, and since it uses a

cathode ray tube for a display, column 5 line 42) interfaced with a display surface

(*column 5 lines 40-43 discusses various displays 621 connected to computer 600*), a

method, comprising the steps of:

providing two electronic diagrams (*Schatz discusses circuit diagrams used in*

electrical engineering as being the types of diagrams Schatz compares and merges at

column 1 lines 41-45), said electronic diagrams having blocks (*electrical components*

are often grouped as blocks in electrical circuit diagrams, such as used in depicting an

integrated circuit, microprocessor, memory, etc.) representing components of a system;

determining corresponding features of said electronic diagrams that are present

in both of said electronic diagrams (*in the merging of diagrams Schatz determines*

redundant diagram features, see column 11 lines 49-52 and 64-67);

determining differences between said electronic diagrams (*in the merging of*

diagrams Schatz determines differences between diagram features when at least the

redundant diagram features are determined, see column 11 lines 49-52 and 64-67);

categorizing said differences between said two electronic diagrams as functional

differences (*The flow between nodes, the flow between systems, the flow between*

nodes in a subsystem, the flow between subsystem nodes of one system to subsystem

nodes of another system are examples of functions of the diagrams and during the

merging process differences between the two diagrams are determined in order to form

the merged diagram.) and graphical differences (*Graphical differences are related to the*

display of the merged diagrams and are a function of the functional differences.), said

functional differences controlling the performance of a system represented by said

electronic diagram, said graphical differences affecting the appearance of said

electronic diagram displayed to a user;

copying all of said functional differences from said selected one of said two

electronic diagrams (*This is taught by merging the resource into the diagram at the*

appropriate location.);

copying less than all of said graphical differences from said selected one of said

two electronic diagrams (*Schatz teaches merging some of the graphical differences*

because the specification at page 12 lines 9 to 11 broadly defines graphical difference

as cosmetic/graphical and does not specify any specific cosmetic or graphical

differences, thus, the examiner proposes that changes in size, location, and whitespace

are inherently included in applicant's cosmetic/graphical difference. Schatz at column

11 lines 11-21 and at lines 29-35 teaches to one of ordinary skill in the art that a

combined diagram may have less graphical elements than each of the individual

diagrams have when view separately. A number of graphical or cosmetic elements may

be absent such as spacing or whitespace between lines, blocks, etc of the diagram, size

of each of the lines, blocks, etc of the diagram, and/or location of the lines, blocks, etc of

the diagram. These examples are not exclusive of other cosmetic/graphical differences

that may be present in the merged diagram taught by Schatz.); and

inserting the copied functional differences and graphical differences into

corresponding sections of said other electronic diagram (*The merging of the two*

diagrams inserts the copied functional and graphical differences from one of the two

diagrams into an appropriate location in the other of the two diagrams.).

Claim 6:

Schatz teaches the method of claim 5, comprising the further step of:

cascading hierarchically the replacement of data elements in said other

electronic diagram wherein said data elements being replaced are arranged in a tree

structure (*Schatz discusses at column 11 lines 28-35 and 42-47 replacing the tree*

structure of one diagram with the tree structure of another diagram during the merge

process), said tree structure having parent data elements with child data elements

attached thereto, said child data elements in said other electronic diagram being

replaced when said parent data element is replaced (*when a tree structure is replaced*

the child data associated with parent data is replaced).

Claim 7:

Schatz teaches the method of claim 5, comprising the further step of:

cascading hierarchically the replacement of data elements in said other

electronic diagram wherein said data elements being replaced are arranged in a tree

structure (*Schatz discusses at column 11 lines 28-35 and 42-47 replacing the tree*

structure of one diagram with the tree structure of another diagram during the merge

process), said tree structure having parent data elements with child data elements

attached thereto, said child data elements of corresponding parent data elements in two

electronic diagrams being replaced without replacing the corresponding parent data

element (*This is described in applicants specification at page 11 lines 11-14. Thus,*

when the user in Schatz selects resources to be merged such as child resources, the

user is selecting to display child resources, then, only the displayed child resources are

merged. Column 10 lines 44-47.).

Claims 17, 19, and 22:

These claims are similar to claim 5 and they are rejected for the reasons given

for claim 5. These claims additionally claim "enabling a user to select one or more of

said differences". Schatz teaches this at column 10 lines 44-47 the Shatz teaches

allowing the user to choose which resources to display which means the user selects

selected resources. Claim 17 also claims an electronic diagram while this claim claims

a state diagram. Both types of diagrams are discussed at column 1 lines 37-45 of

Schatz, thus, state diagrams are compared and merged by Schatz. Claim 19 is

claiming essentially the electronic device of claim 5 is connected to a network and

having the electronic diagrams received by the electronic device over the network.

Schatz teaches at column 6 lines 7-28 storing the data to be analyzed at a location

different than the computer 600 and computer 600 is connected to a network LAN/WAN

via network interface 603. Thus, the electronic diagrams compared and merged by

Schatz are retrieved from a database via the network, stored locally, and then

compared and merged. The claim limitation including "at least one semantic connection, said semantic connection associating components within the same system in said electronic diagram" is met by the attribute that semantically associates all of the diagram components to a diagram and is met by the attribute that semantically associates all of the sub system components to a particular subsystem. This type of connection in the diagram is taught by Schatz by the attributes which identifies diagram components to a diagram and by Schatz when a component's sub system is analyzed since all of the components of the sub system do not have a direct connection to each other but they are semantically associated with the same sub system. See column 1 lines 53-55 and 59-62, column 2 lines 31-34, column 3 lines 51-57, column 4 lines 11-16, and column 5 lines 6-16 for various semantic connections that associates within the same system an electronic diagram. Also column 11 lines 5-8 teaches to merge diverse diagrams each diverse diagram is formed from known resources or systems. Claim 22 also claims *In an electronic device interfaced with a display surface, a medium holding computer-executable instructions for a method.* Schatz discusses at column 5 lines 29-30 and column 6 lines 14-17 storing instructions for the processes executed by the processor 602 in main memory 604. Main memory 604 is a medium holding the computer executable instructions for causing a processor to perform the comparing and merging.

Allowable Subject Matter

9.   Claim 10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, and 35 U.S.C. 101 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter.
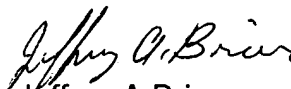
Claim 10:

The prior art of record fails to teach or suggest *determining a distance on said display surface from an endpoint of a line to an updated connection point for a block in said other electronic diagram, said updated connection point being the connection point of said line and said block following a merge operation;*
comparing said distance to a pre-defined parameter, said pre-defined parameter being a distance value;
extending said displayed line to said updated connection point when said distance is less than said pre-defined parameter; and
replacing said line with a new line drawn to said updated connection point when said distance is at least as large as said pre-defined parameter because Schatz at column 10 lines 28-47 distance is not discussed as being a parameter that controls the visual appearance of a line.

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is (571) 272-

7656. The examiner can normally be reached on M-F from 7:00 to 3:30. If attempts to

reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael

Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization

where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Jeffery A Brier
Primary Examiner
Art Unit 2628